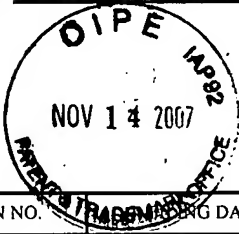




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APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,789	03/19/2004	William R. Kowalski	2004-2	8879
7590 Martin E. Hsia P.O. Box 939 Honolulu, HI 96808		EXAMINER LEFF, STEVEN N		
		ART UNIT 1794		
		MAIL DATE 11/13/2007		
		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/804,789

Applicant(s)

KOWALSKI, WILLIAM R.

Examiner

Steven Leff

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8, 11-17, 19-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 11-17, 19-25, and 27-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- Claims 1-6, 8, 11-17, 19-25, 27-28, and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The application does not appear to disclose the subject matter of claims 1-6, 8, 11-17, 19-25, 27-28, and 31.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- Claims 1-6, 8, 11-17, 19-25, 27-28, and 31, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - The phrase "without causing substantial damage to the permeable solid" in claim 1 is rejected, as it is a relative phrase, which renders the claim indefinite. The phrase "without causing substantial damage to the permeable solid" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear as to what is encompassed by the phrase "without causing substantial damage to the permeable solid"; it is unclear as to what degree of difference is encompassed by this phrase, if not "without causing substantial damage to the permeable solid".
  - The phrase "said fluid" of claim 16 is rejected as it lacks antecedent basis as it is not clear if the fluid is the same material as the gas, or not.

- The phrase “fluid” of claim 24 is rejected as it lacks antecedent basis as it is not clear if the fluid is the same material as the gas, or not.
- The phrase “comprises a combination gas and liquid as a vapor” is rejected in claim 11, as it is unclear if the “combination gas and liquid as a vapor” is with respect to a gas and liquid being combined to form a vapor, or if the liquid has been changed to a vapor, and then the two are combined or if the gas is a “combination gas” which is combined with the “liquid as a vapor”. It is further unclear if only gas is required in claims 1-4, or not.
- Claim 25 is rejected due to the phrase “fluid flows through said needle at a rate from 1.0 cc per second to 16 cc per second” as it is unclear if the fluid flows in a range of 1.0 cc per second and 16 cc per second, or if the phrase is with respect to the fluid increasing its flow from a rate of 1.0 cc per second to a rate of 16 cc per second during the injection. It is further not clear if “fluid” is the same material as the gas, or not.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- Claim 1-6, 8, 11-17, 24-25, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington (2674179) in view of Wattenbarger (3216826).

With respect to claims 1-6, 8, 11-17, 24-25, and 27-31, Harrington teaches a process for injecting a fluid provided at a source pressure (col. 3 line 1+) into a

permeable solid having regions of varying density (col. 7 line 67+). More specifically Harrington teaches, flowing the fluid through a needle having an orifice that accelerates the fluid (col. 2 line 20+) and an outlet for discharging the gas into the permeable solid (col. 1 line 50+) against a back pressure (col. 7 line 65+), penetrating the needle and the outlet into the permeable solid (col. 2 line 5+), injecting the fluid into the permeable solid through the outlet while maintaining the source pressure at more than approximately twice the back pressure (col. 2 line 30+), but without causing substantial damage to the permeable solid (col. 2 line 47+), where mass flow of the gas into the permeable solid becomes substantially independent of the back pressure during the injecting step, as long as the source pressure remains more than approximately twice the back pressure, and where substantially the same mass of gas is injected per unit time into the regions of varying density in the permeable solid (col. 2 line 30+).

Harrington continues by teaching that the quantity of fluid per unit time flowing through the needle into the permeable solid are substantially the same, regardless of any varying density in the permeable solid (col. 7 line 65+), that the orifice is sized by removing material from the orifice (col. 2 line 43+), that the solid is selected from the group consisting of meat or fish (col. 8 line 14+), and that the penetrating step is performed with a multiplicity of needles (fig. 3-4). Harrington continues by teaching that the fluid flows at a continuous rate (col. 7 line 65+), that the fluid is provided at the source pressure through a fluid manifold connected to a multiplicity of needles (col. 2 line 38+), that the fluid manifold has a fluid delivery system driven by a hydraulic drive system (col. 4 line 62+, col. 3 line 65+). Harrington further teaches that the orifice is the internal diameter of the needle since the orifice is within the needle itself and thus "the orifice is the internal diameter of the needle".

In addition Harrington teaches a device for injecting fluid comprising a sized needle for injection fluid having an orifice, where the needle has been sized to provide a predetermined flow rate substantially independent of back pressure (col. 7 line 65+) by flowing gas through the orifice while adjusting the orifice size until the predetermined flow rate is achieved (col. 2 line 38+)

However Harrington is silent with respect to the fluid being specifically a gas, and that the orifice is sized by crimping the orifice, that the gas flow through the orifice reaches approximately sonic velocity, that the gas is a combination of gas and a liquid to

form a vapor, that the gas is selected from the group consisting of carbon monoxide, carbon dioxide, and ozone, that the source pressure is from 50 PSI to 750 PSI, and that the penetrating step is performed at a continuous rate of between approximately .5 inch per second and approximately 24 inches per second.

Wattenbarger teaches a method of distributing a non-meat ingredient throughout a substantially solid meat mass (col. 1 line 13+). More specifically Wattenbarger teaches a process for injecting either a liquid or a gas (col. 2 line 24+) into a meat product, that the gas flow through the orifice reaches approximately sonic velocity (col. 3 line 30), that the gas is a combination of gas and a liquid to form a vapor (col. 4 line 51+), that the gas is selected from the group consisting of carbon monoxide, carbon dioxide, and ozone (col. 2 line 60+), and that the source pressure is from 50 PSI to 750 PSI (col. 2 line 30+). With respect to the limitation which teaches that the gas is at "sonic velocity" it is noted that applicant teaches in paragraph 0037 that sonic velocity is with respect to the pressure below the orifice which is dependant upon the specific meat product, in addition to teaching the specific source pressure as is taught by the applicant.

With respect to the limitation that the fluid is specifically a gas, although Harrington is silent with respect to teaching specifically gas injecting, Harrington does teach flowing the fluid through a needle having an orifice that accelerates the fluid (col. 2 line 20+) and an outlet for discharging the gas into the permeable solid (col. 1 line 50+) against a back pressure (col. 7 line 65+), penetrating the needle and the outlet into the permeable solid (col. 2 line 5+), injecting the fluid into the permeable solid through the outlet while maintaining the source pressure at more than approximately twice the back pressure (col. 2 line 30+), but without causing substantial damage to the permeable solid (col. 2 line 47+), where mass flow of the gas into the permeable solid becomes substantially independent of the back pressure during the injecting step, as long as the source pressure remains more than approximately twice the back pressure, and where substantially the same mass of gas is injected per unit time into the regions of varying density in the permeable solid (col. 2 line 30+). In addition, Wattenbarger does specifically teach the use of either a liquid or gas (col. 2 line 24+), and thus one of ordinary skill in the art would have been motivated to combine the teaching of Harrington and Wattenbarger, and taught that the fluid is specifically gas, since Harrington teaches the orifice for its art recognized and applicant's intended purpose of providing a

consistent flow of fluid regardless of the texture of the meat, where a fluid can be considered a gas or a liquid, and since Wattenbarger does specifically teach gas as the fluid.

Therefore it would have been obvious to one of ordinary skill in the art to teach that the fluid is specifically a gas, since both teach the desired result of providing a consistent flow of fluid regardless of the texture of the meat, since Harrington already teaches the specific method as that of the applicant, albeit with a liquid (col. 2 line 30+), and since Wattenbarger does teach the desire to provide a method and system which is capable of providing the desired results using either liquid or gas as the fluid (col. 2 line 22+) and providing a predictable and consistent final product.

In addition, one of ordinary skill in the art would have been motivated to combine the teachings of Harrington and Wattenbarger and taught that the orifice is sized by crimping the orifice since Harrington teaches sizing the orifice, since Harrington teaches different sized orifices (col. 2 line 42+), in addition to teaching the use of a pressure gauge for providing suitable pressure (col. 23+) in an adjustable manner. Therefore one of ordinary skill in the art would have been motivated to combine the teachings of Harrington and Wattenbarger and taught that the orifice is sized by crimping the orifice since both teach treating the meat with a fluid which is at a specific velocity when exiting the needle, since Harrington teaches changing the size of the orifice with respect to the specific desired results (col. 2 line 43+), and since sizing the orifice by crimping, such as is the case in a typical valve, would allow the device to be used with many different orifice sizes without the need to change the needles individually since the crimping provides an adjustable orifice size thereby providing a more time efficient manner.

Further, one of ordinary skill in the art would have been motivated to combine the teachings of Harrington and Wattenbarger and taught that the gas is a combination of gas and a liquid to form a vapor, since Harrington teaches flowing the fluid through a needle having an orifice (col. 2 line 20+), and where Wattenbarger teaches that the gas is a combination of gas and a liquid to form a vapor. Therefore one of ordinary skill in the art would have been motivated to combine the teachings of Harrington and Wattenbarger and taught that the gas is a combination of gas and a liquid to form a vapor since both teach treating meat with a fluid, and since Wattenbarger specifically teaches that the gas

is a combination of gas and a liquid to form a vapor (col. 4 line 51+), where the addition of a fluid to the gas allows for "incorporating such other ingredients" (col. 3 line 75+) thereby not only treating the meat with a gas for preservative reasons, but further allowing the meat to be flavored on the inside thereof without rupturing the skin of the meat (col. 3 line 33+)

Further, one of ordinary skill in the art would have been motivated to combine the teachings of Harrington and Wattenbarger and taught that the gas is selected from the group consisting of carbon monoxide, carbon dioxide, and ozone since Harrington teaches flowing the fluid through a needle having an orifice that accelerates the fluid (col. 2 line 20+), and where Wattenbarger teaches that the gas is selected from the group consisting of carbon monoxide, carbon dioxide, and ozone for its art recognized intended purpose of providing carbon dioxide to lower the pH of the meat (col. 3 line 1+). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have taught that that the gas is selected from the group consisting of carbon monoxide, carbon dioxide, and ozone since both teach treating meat with a fluid for flavoring, since Wattenbarger specifically teaches that the gas is carbon dioxide to lower the pH of the meat (col. 3 line 1+), and where the addition of a specific gas would yield predictable results with respect to a specific treatment, as is further taught by Wattenbarger (col. 3 line 1+), thereby producing a specific tasting and treated final product.

With respect to the limitation that gas flow through the orifice reaches approximately sonic velocity of claim 8, although Harrington is silent with respect to teaching that the gas flow through the orifice reaches approximately sonic velocity, Harrington does teach flowing the fluid through a needle having an orifice that accelerates the fluid (col. 2 line 20+) and an outlet for discharging the gas into the permeable solid (col. 1 line 50+) against a back pressure (col. 7 line 65+), penetrating the needle and the outlet into the permeable solid (col. 2 line 5+), injecting the fluid into the permeable solid through the outlet while maintaining the source pressure at more than approximately twice the back pressure (col. 2 line 30+), but without causing substantial damage to the permeable solid (col. 2 line 47+), where mass flow of the gas into the permeable solid becomes substantially independent of the back pressure during the injecting step, as long as the source pressure remains more than approximately twice the



back pressure, and where substantially the same mass of gas is injected per unit time into the regions of varying density in the permeable solid (col. 2 line 30+). In addition, Wattenbarger does specifically teach that the gas flow through the orifice reaches approximately sonic velocity (col. 3 line 30+), and thus one of ordinary skill in the art would have been motivated to combine the teaching of Harrington and Wattenbarger, and taught that the gas flow through the orifice reaches approximately sonic velocity, since Harrington teaches the orifice for its art recognized and applicant's intended purpose of providing a consistent flow of fluid regardless of the texture of the meat, where a fluid can be considered a gas or a liquid, and since Wattenbarger does specifically teach that the gas flow through the orifice reaches approximately sonic velocity.

Therefore it would have been obvious to one of ordinary skill in the art to teach that the gas flow through the orifice reaches approximately sonic velocity, since both teach the desired result of providing a consistent flow of fluid regardless of the texture of the meat, since Harrington already teaches the specific method as that of the applicant and the desired result as that of the applicant, albeit with a liquid (col. 2 line 30+), and since Wattenbarger does teach the desire to provide a method and system which is capable of providing the desired results using gas flowing through the orifice at approximately sonic velocity (col. 3 line 30+) where the gas flow is dependant upon the size of the meat mass, whether it is frozen or not, etc., and thus in the instant where the meat comestible is frozen or large, one of ordinary skill would have been motivated to increase the velocity of the gas in order to provide the desired internal effect produced by the gas regardless of the size or texture of the meat, without causing the perimeter of the meat mass to be ruptured. Further "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." (see MPEP 2144.04 IIA) "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." (see MPEP 2144.04 IIA)

With respect to the limitation that the fluid flows through the needle at a rate from 1.0 cc per second to 16 cc per second, or .05 cc per second to 16 cc per second, that the source pressure is from 50 PSI to 750 PSI, that the orifice is the size of the internal diameter of the needle, and that the penetrating step is performed at a continuous rate of

between approximately .5 inch per second and approximately 24 inches per second, although Harrington is silent with respect to these limitations, one of ordinary skill in the art would have been motivated to combine the teaching of Harrington and Wattenbarger since Harrington does teach flowing the fluid through a needle having an orifice that accelerates the fluid (col. 2 line 20+) and an outlet for discharging the gas into the permeable solid (col. 1 line 50+) against a back pressure (col. 7 line 65+), in addition to teaching that the amount of fluid which is injected into the product is dependant upon the depth that the needle is inserted into the meat (col. 6 line 56+) and the dwell time within the meat, where Wattenbarger teaches the method with respect to a liquid or a gas, that the source pressure is from 50 PSI to 750 PSI (col. 3 line 30+) and where the flow rate is dependant upon conditions such as size, degree of desired internal penetration, etc. (col. 3 line 20+).

Therefore it would have been obvious to one of ordinary skill in the art to teach that the fluid flows through the needle at a rate from 1.0 cc per second to 16 cc per second, or .05 cc per second to 16 cc per second, that the source pressure is from 50 PSI to 750 PSI, that the orifice is the size of the internal diameter of the needle and that the penetrating step is performed at a continuous rate of between approximately .5 inch per second and approximately 24 inches per second, since both teach the desired result of providing a consistent flow of fluid regardless of the texture of the meat, since Harrington already teaches the specific method as that of the applicant and the desired result as that of the applicant, albeit with a liquid (col. 2 line 30+), and since Wattenbarger does teach the desire to provide a method and system which is capable of providing the desired results using gas flowing through the orifice (col. 3 line 30+) where the gas flow is dependant upon the size of the meat mass, whether it is frozen or not, etc., that the source pressure is from 50 PSI to 750 PSI, in addition to teaching that the overall method is directly affected by these specifics, which are then taken into account with respect to other desired conditions, thereby providing a predictable and consistent method for a specific range of products or product characteristics with the desired internal treatment produced by the gas regardless of the size or texture of the meat, without causing the perimeter of the meat mass to be ruptured. Further "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." (see MPEP 2144.04 IIA) "The normal

desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." (see MPEP 2144.04 IIA)

- Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable over Harrington (2674179) in view of Wattenbarger (3216826) in further view of Sholl (3769037).

Harrington and Wattenbarger are taken as above however both are silent with respect to the orifice being made by laser, EDM, drilling, punching or grinding, in addition to being silent with respect to the specific sizes of the orifice being from .0001 inch to .02 inches.

Regarding claims 19-22, Sholl teaches a method injecting an aqueous solution or suspension, which is suited for injecting meat products such as poultry and the like (col. 1 line 54+) where the orifice is sized to an accurate fluid flow rate and the fluid is a gas (col. 3 line 50+). With regard specifically to claims 19-22, Sholl teaches that the pressure is dependant upon the size of the orifice among other things (col. 3 line 51+) and further teaches that the orifices may be formed by a process called "spark discharge drilling", which allows orifices to be easily drilled with a diameter of 0.014 inches or smaller (col. 3 line 46+).

Therefore although neither Harrington nor Wattenbarger teach the specific orifice sizes, Harrington and Wattenbarger both do teach the general concept that the size of an orifice would affect the pressure requirement, as does Sholl, however Sholl further teaches the specific sizes of the orifices for injecting the material. Consequently, one of ordinary skill in the art would have been motivated at the time of the invention by the applicant to have combined the teachings of Harrington, Wattenbarger and Sholl in order to produce specifically sized orifices which would allow for a specific pressure in order to achieve the desired results, such as depth of penetration or the quantity of material which is to be introduced into the meat body thus avoiding the material "seeping out" or rupturing the perimeter of the meat body (col. 3 line 29).

Therefore regarding claims 19-22, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have taught a specific method of forming the orifice which is dependant upon the specific desired size of the orifice, and to have taught specific orifice sizes in order to produce a product with the

desired degree of penetration with respect to the specific product and the characteristics of the product itself during treatment thereby providing the desired end result, which is a non-ruptured meat product with a specific degree of treating fluid having been introduced into the interior thereof.

### ***Response to Arguments***

- Applicant's arguments with respect to Liljenberg have been considered but are moot in view of the new ground(s) of rejection.
- Applicant's arguments with respect to Wattenbarger have been considered but are moot in view of the new ground(s) of rejection. However with respect to the argument that Wattenbarger can not be combined with other references, as the applicant asserts that Wattenbarger teaches against "avoiding substantial damage to the meat", it is noted that Wattenbarger specifically teaches the desire of producing a treated meat where the perimeter of the meat mass has "not thereby ruptured" (col. 3 line 33+) due to the treatment, and thus since Wattenbarger is directed to providing a meat product where the perimeter is unaffected, Wattenbarger positively teaches a permeable solid which is not "substantially" damaged.
- With respect to the applicant's argument that Harrington does not teach injecting the fluid into the permeable solid through the outlet while maintaining the source pressure at more than approximately twice the back pressure, applicant is directed to col. 2 line 30+, which teaches that the pressure within the manifold, (above the orifice and supplied by a pressure source) "is several times as great as the pressure within the needle passage" (col. 2 line 31+, where the needle passage is below the orifice) as was stated in the previous Office action. With respect to applicant's argument that Harrington can not be combined with other references since it teaches only a fluid, and that gases can compressed where a fluid is "comparatively incompressible" it is noted that if this were the case a balloon filled with gas, no matter how much, would never "pop" due to the increase in pressure, however this is known not to be the case, since gas also has a volume and density associated with it, where compressing the gas increases the pressure, the same principal as that of a fluid since a fluid is compressible and where the phrase "comparatively incompressible" is a relative term. In addition, it has been held that a prior art

reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Harrington teaches the same method as that of the applicant albeit with a liquid treating method, as opposed to a gas treating method.

- With respect to applicant's argument that Sholl does not teach a needle, it is noted that the specific sizes taught in claims 20-22, that the sizes are with respect to the orifice itself and not the needle, for its art recognized and applicant's intended purpose of providing fluid flow through an orifice that accelerates the fluid where applicant specifically states in the arguments that Sholl is directed to an insert with three openings, where it is pointed out to the applicant that the opening are taken to be the orifices where Sholl positively teaches the claim limitations with respect to the specific method of forming the orifices and the size thereof.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Leff whose telephone number is (571) 272-6527. The examiner can normally be reached on Mon-Fri 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SL

58244  
11/8/07

*Drew Becker*  
DREW BECKER  
PRIMARY EXAMINER  
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